# FUS 1601 Operation of Mechanical Fuel Dispensing Systems

Extensive practice in operating various refueling systems that receive, issue, and transfer fuel; systems include mechanical, hydrant, and portable units. Includes application of petroleum product quality control procedures.

## **FUS 1602 Operation of Fuel Servicing Vehicles**

Operation of various fuel servicing vehicles, associated components, and hose carts; includes practice in driving and application of procedures used to service various aircraft with fuel and related expendable.

#### **FUS 2503 Fuels Analysis**

Analysis of fuels using color and practical assessment, matched weight monitor, undissolved water content of aviation fuels, heavy hydrocarbon contamination test, fiber determination, conductivity testing, bottle method, aircraft sump samples, flashpoint, and fuels system icing-inhibitor testing.

# FUS 2504 Air Transportable Hydrant Refueling Systems

Operation and maintenance of various air-transportable fueling systems that receive, issue, and transfer fuel. Includes implementation of petroleum product quality control procedures.

### **FUS 2601 Quality Control of Aircraft Fuels**

Application of quality assurance principles. Includes identification of contamination sources; sampling methods and use of equipment; laboratory hygiene and safety standards test intervals; and practice in testing for solids, water, conductivity, fuel system icing inhibitor, potential hydrogen odor, and flashpoint.

#### FUS 2602 Fuel Storage Facilities Maintenance

Application of complex maintenance techniques and repair procedures for filtration equipment, electrical controls, pumps, and conventional hydrant fuel systems.

### **FUS 2603 Fuel Stock Fund Accounting**

Application of stock fund accounting principles; includes facilities operation, inventory management, implementation of administration procedures, quality assurance of facilities operation, and implementation of management information system using remote computer terminals.

#### **FUS 2607 Fuels Management**

Application of advanced techniques for planning, organizing, directing, and coordinating fuels activities involving personnel, facilities, and equipment. FUS 2608 Petroleum Tank-Cleaning Supervision

Supervision of tank-cleaning operations. Tank acceptance, precleaning, and safety equipment inspections. Procedures for tank entry, cleaning, and return to service. Analysis of tank preventive maintenance records and "as build" drawings.

# **Applied Geography**

#### **GEO 1403 Area Studies**

Geography, climatic characteristics, economic development, and military posture of a major area of interest. Emphasis on political and historical development of region of weapon systems deployment in relation to geographic limitations.

### **GEO 1406 Third World Country Studies**

Geographic, political, and military aspects of Middle Eastern, Far Eastern, Latin American, and African countries.

# **Applied Government**

# **GOV 1406 Government Organization and Structure**

Structure of governmental organizations and service missions. Includes historical, geopolitical, economic, and military analysis. Emphasis is on military's support of political ideology.

# **Geophysical Sciences**

#### **GPS 1402 Seismic Analysis**

Procedures and methods required to analyze seismic observations, such as identification and application of seismic travel time charts and tables, event types, and distance ranges; includes teleseismic, special, deep-event, regional, and near-regional/local analyses.

### **GPS 1403 Seismic Techniques**

Introduction to theories of Earth's interior construction and physical properties. Includes seismic-wave propagation; theory and principles of longitudinal, transverse, and Rayleigh wave generation; and transmission through and around the earth.

### **GPS 1404 Seismic Equipment Operation**

Introduction to seismic equipment and station operation; includes station block diagrams, logs and routine forms, and timing and signal subsystem theory/operation, oscilloscope operation, and timing synchronization, seismic signal generation/transmission, and methods of signal amplification and control.

# **GPS 1406 Seismic Station Operation**

Practical application of seismic theory, observation, analysis, and equipment; includes equipment operation under simulated field conditions, data analysis and reporting, and station documentation.

# GPS 1407 Hydroacoustic Theory and Principles

Introduction to hydroacoustic theory; includes sound propagation through liquid media, sound reflection, refraction, and spectra of various phenomena.

## **GPS 1410 Radiation Detection Principles**

Theory of operation and characteristics of various radiation detection equipment units.

#### **GPS 1411 Scientific Technician Orientation**

Professional responsibilities, selection and use of various publications, equipment and personal safety, and areas directly associated with scientific analysis.

### **GPS 1412 Detection Systems**

Introduction to seismic, hydroacoustic, and satellite detection systems; includes operational characteristics and concepts.

# **GPS 1413 Satellite Detection Systems**

Introduction to orbital mechanics and satellite equipment operations; includes physics of orbit, conic sections, and sensor theory.

### GPS 2402 Seismic Analysis II

Specific procedures and methods used to analyze and report seismic observations. Includes identification and application of travel time charts, tables and analysis procedures, such as initial phase incident angle determination, phase minus P time, phase type determination, phase envelope, phase travel path, travel time chart comparisons, logical identification, and reporting of all event types.

# **Graphics**

#### **GRA 1800 Introduction to Graphics**

Care and use of graphic arts equipment and materials, plus establishment and use of comprehensive art files.

#### **GRA 1801 Lettering**

Theory, principles, and practices of freehand lettering, mechanical lettering, and prepared lettering for illustration.

### **GRA 1803 Drawing and Illustration Techniques**

Line and tone media techniques; includes selection of mediums for illustration, color techniques, basic forms, perspectives, sketch and shape descriptions, layouts, compositions, landscapes, cartoons, and caricatures.

#### **GRA 1805 Visual Communications**

Methods of data presentation emphasizing graphic techniques; includes preparing display charts and graphs, illustrating maps, and artwork for television and overhead projection devices.

#### **GRA 1806 Computer Automated Graphics**

Theory and basic operation of computer automated graphics. Includes familiarization and use of hardware and software.